Appendix E

Supplemental Biological Data Collection

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SECTION A - STATEMENT OF WORK

In addition to the routine intercept survey measurements of fish lengths and weights, for certain species the NMFS has needs for additional length measurements and biological data for use in stock assessment and management analyses. In order to obtain such information, this option provides for conducting additional field assignments independent of the routine intercept survey assignments to conduct sampling of landed fish of particular species.

BACKGROUND

Stock assessments rely on life history parameters such as fecundity, spawning seasonality and periodicity, food habits, mortality rates, and a variety of other information. In addition, many stock assessments rely on Virtual Population Assessments which use length-at-age keys in concert with representative distributions of lengths in the recreational and commercial catch to model mortality rates and spawning stock biomass ratios. These age-at-length keys require analysis of hard parts such as scales, fin spines, backbones and otoliths for growth rings, similar to methods used to age trees. This option provides for gathering a variety of biological data from recreational fisheries to satisfy stock assessment needs.

REQUIREMENTS

1.0 Biological Data Collection

Biological data expected to be gathered from recreationally caught fish includes lengths, weights, and hard parts (scales, otoliths and/or spines). Gonads and stomachs might be requested to be collected in lieu of hard parts.

Species to be sampled will be determined annually by NMFS. For each species chosen by NMFS, the intercept survey contractor shall be expected to sample a minimum of least three hundred fish. NMFS may order more than the minimum. The hard part and size samples shall be obtained in proportion to historical catches by state, mode, and wave. Sampling techniques and training in hard part removal and preservation will be provided to the successful contractor at training sessions conducted by NMFS for senior contractor training staff.

Trained interviewers using devices such as measuring boards and punch strips, electronic measuring boards or other appropriate methodology will collect size measurements and hard parts in proportion to historical catches by species, state, mode, wave and area fished. The species which could be selected for additional biological sampling are listed in Table E.1 along with the approximate sampling levels which might be required.

These observations should be obtained independently from the regular intercept survey assignments to minimize statistical or procedural corruption of the intercept interviewing task. Only biological data along with some fishing area information such as date and area of the catch

will be recorded, allowing more efficiency in this data collection. Separate biological data collection assignments would then be drawn by the Contractor. However, it is expected that the intercept interview labor pool can be trained and tasked to conduct the biological assignments. Observations should be obtained at MRFSS sampling sites when maximum numbers of observations are likely to occur. Since head boat operations in some areas do not land fish in whole form, it may be necessary to obtain passage on such vessels to meet the requirement.

Proposals should describe training and staffing plans, sample site selection and administration, measurement methods and technology proposed. Cost proposals should provide pricing on a perunit basis where one unit is equal to one fish sampled for length, weight and hard parts.

2.0 Reporting Requirements

Data will be entered onto magnetic tape in a format provided by NMFS to the successful bidder. Data will be edited by the successful data collection Contractor for data entry errors and subjected to range and logic checks appropriate to the strata being sampled before delivery to NMFS. All edit programs are subject to approval by NMFS. Reporting requirements and periods of performance for the biological tasks are the same as those specified for the basic intercept interviewing tasks. Wave report shall include tallies of the number of fish sampled by state, month, and species.

3.0 Data Transmittal

For hard parts and lengths and weights, data can generally be recorded on small envelopes with hard parts sealed into the envelope. NMFS will conduct analysis of hard part and length/weight data and a mailing address for samples will be provided.

SECTION B - PERIOD OF PERFORMANCE

The period of performance shall be on an annual basis as provided for the routine MRFSS in the Statement of Work for the 1999 contract and is incorporated in this Statement of Work by reference.

SECTION C: CONFIDENTIALITY

The data collected for the survey shall be used only for statistical purposes, and will be available in identifiable form only to NMFS and its contractors except as otherwise required by law. All requirements of the Privacy Act of 1974 (P.L. 93-579) concerning the collection and use of identifiable information for individuals shall be observed.

Table E.1 Possible Species for Supplemental Biological Sampling

| <u>REGION</u> | <u>SPECIES</u> | APPROXIMATE NUMBERS OF FISH TO SAMPLE |
|---------------|--|--|
| NORTHEAST | ATLANTIC COD BLUEFISH ATLANTIC MACKEREL SUMMER FLOUNDER WINTER FLOUNDER STRIPED BASS TAUTOG WEAKFISH ATLANTIC BLUEFIN TUNA BIGEYE TUNA ALBACORE YELLOWFIN TUNA SKIPJACK TUNA | 2000 10000 1000 1000 500 300 300 300 300 300 300 |
| SOUTHEAST | KING MACKEREL GREATER AMBERJACK DOLPHIN RED SNAPPER RED GROUPER GAG BLACK GROUPER RED DRUM ATLANTIC BLUEFIN TUNA BIGEYE TUNA ALBACORE YELLOWFIN TUNA SKIPJACK TUNA | 400 500 400 400 300 300 300 300 300 3 |